

NON-PUBLIC?: N
ACCESSION #: 8908010387
LICENSEE EVENT REPORT (LER)

FACILITY NAME: St. Lucie, Unit 2 PAGE: 1 of 3

DOCKET NUMBER: 05000389

TITLE: Loss of load reactor trip on high steam generator level due
to personnel error
EVENT DATE: 06/26/89 LER #: 89-005-00 REPORT DATE: 07/26/89

OPERATING MODE: 1 POWER LEVEL: 22

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: L. L. McLaughlin, Supervisor TELEPHONE: (407) 465-3550
Engineer

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On June 26, 1989 at 2347 hours, St. Lucie Unit 2 reactor tripped on loss of load from 22% power during turbine startup. The loss of load reactor trip was a result of a turbine trip due to high steam generator level in the 2A steam generator. The trip was uncomplicated and the unit was quickly stabilized in Mode 3, Hot Standby.

The root cause of the event was cognitive personnel error by utility-licensed operators due to less than adequate communication between the shift crew performing the turbine startup evolution.

The utility-licensed operators were counseled on the need for well controlled evolutions, in which good communication is of the utmost importance by all participants, as a short term corrective action. The plant training group will evaluate this event to determine appropriate training requirements and methods.

END OF ABSTRACT

TEXT PAGE 2 OF 3

DESCRIPTION OF EVENT

On June 26, 1989, St. Lucie Unit 2 was in Mode 1 with reactor power at 5%. The Unit was preparing to synchronize the main turbine generator (EIIS:TB) to the grid. At 2335 hours, the main generator output breakers were closed and the main generator was synchronized to the grid. The reactor control operator at the turbine controls manually entered a load rate of 50 MW per minute to minimize the possibility of a main generator secondary lockout on anti-motoring protection circuit. The high turbine load rate resulted in a drop in primary system average temperature. The Assistant Nuclear Plant Supervisor noted the problem and instructed that the turbine load rate be reduced to 25 MW per minute. Turbine loading was stopped to help stabilize the plant. Control element assemblies (CEAs) (EIIS:AA) were withdrawn to raise primary coolant temperatures to offset the rapid drop in temperature due to the turbine load rate. Reactor power increased from approximately 11% to 22% over a short period of time. At this point, the control room operators were unable to compensate for the primary and secondary power mismatch. With primary coolant system temperature increasing, the steam generator levels swelled. At 2347, the turbine tripped on high level on the 2A S/G and the reactor tripped on loss of load due to the turbine trip. The Standard Post Trip Actions were performed and the unit was stabilized in Mode 3, Hot Standby.

The trip was an uncomplicated reactor trip and all systems functioned normally.

CAUSE OF EVENT

The cause of the event was cognitive personnel error by utility-licensed operators due to less than adequate communication between the shift crew performing the turbine startup evolution. The operator at the reactor controls did not adequately convey the magnitude of the CEA withdrawal to the other operators at the steam generator level control station and the turbine control station. The turbine startup evolution was performed under the guidance of an approved plant procedure when the error occurred. There were no unusual characteristics of the work location that directly contributed to the personnel error.

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ANALYSIS OF EVENT

The event is reportable under 10 CFR 50.73 (a)(2)(iv), "any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature, including the Reactor Protection System."

The event was observed to be an uncomplicated reactor trip on loss of load. The loss of load reactor trip is for equipment protection and is not required for reactor safety. The resulting transient was well enveloped by the St. Lucie Unit #2 Final Updated Safety Analysis Report section 15.2.1.2 "Limiting Reactor Coolant System Pressure Event-Isolation of Turbine (100% power)." All plant safety functions were met and there were no additional complications. Consequently, the health and safety of the public were not affected by this event.

CORRECTIVE ACTIONS

1. The utility-licensed operators were counseled on the need for well controlled evolutions, in which good communication is of the utmost importance by all participants.
2. The plant training group will evaluate this event to determine appropriate training requirements and methods.

ADDITIONAL INFORMATION

FAILED COMPONENT INFORMATION:

There were no failed components during this event.

PREVIOUS SIMILAR EVENTS:

For similar events involving reactor trips on loss of load due to high steam generator level, see Licensee Events Reports:

335-86-004
389-85-004

ATTACHMENT 1 TO 8908010387 PAGE 1 OF 1

P.O. Box 14000, Juno Beach, FL 33408-0420

JULY 26 1989

L-89-272
10 CFR 50.73

U. S. Nuclear Regulatory Commission

Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Re: St. Lucie Unit 2
Docket No. 50-389
Reportable Event: 89-05
Date of Event: June 26, 1989
Loss of Load Reactor Trip on High Steam
Generator Level due to Personnel Error

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

C.O. Woody
Acting Senior Vice President - Nuclear

COW/JRH/cm

Attachment

cc: Stewart D. Ebnetter, Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant

*** END OF DOCUMENT ***
